# Benjamin Bengfort

*Curriculum Vitae*

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## Education

**2014–present**   **PhD Candidate**, *University of Maryland, College Park*.
Graduate Research Assistant, Metacognitive Lab

**2008-2010**   **M.S. Computer Science**, *North Dakota State University*.
Phi Kappa Phi, Upsilon Pi Epsilon

**2004-2006**   **B.A. Economics**, *University of Maryland, College Park*.
Primanum Honor Society

**2002-2003**   **English Major**, *United States Naval Academy*.

## Publications

Benjamin Bengfort and Michael T. Cox. Interactive Knowledge-Goal Reasoning. In *Goal Reasoning: Papers from the ACS Workshop*, page 10, 2015.

Benjamin Bengfort, Philip Y. Kim, Kevin Harrison, and James A. Reggia. Evolutionary design of self-organizing particle systems for collective problem solving. In *Swarm Intelligence (SIS), 2014 IEEE Symposium on*, pages 1–8. IEEE, 2014.

Benjamin Bengfort and Xiaojiang Du. Efficient resource allocation in Hybrid Wireless Networks. In *Wireless Communications and Networking Conference (WCNC), 2011 IEEE*, pages 820–825. IEEE, 2011.

Benjamin Bengfort and Jenny Kim. Hadoop Fundamentals for Data Scientists, January 2015.

Tony Ojeda, Sean Patrick Murphy, Benjamin Bengfort, and Abhijit Dasgupta. *Practical Data Science Cookbook*. Packt Publishing Ltd, 2014.

## Experience

**2014–present**   **Adjunct Faculty**, *Georgetown University*, Washington, DC.
Lecturer, Data Analytics Certificate Program (CCPE). Teaching *Foundations of Data Science*, *Software Engineering for Data*, *Data Sources*, *Data Analysis II: Machine Learning*, and *Applied Data Analytics*.

**2013–2014**   **Data Scientist**, *Cobrain Company*, Bethesda, MD.
Developed a Global Recommendation Engine, using Collaborative Filtering algorithms as well as Active Learning and adaptive systems from a machine-learning standpoint. Graph traversal and clustering across massive data stores required distributed Graph databases: Titan, as well as strong computation in Hadoop and Python with Pandas and NumPy. Entity resolution and ontological reasoning using probabilistic graphical models and RDF ontologies also factored into the work to disambiguate crawl data from a massive distributed crawler also developed at Cobrain.

| 2011–2013 | **Chief Technology Officer**, *Unbound Concepts*, Baltimore, MD. |
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2011–2013 **Chief Technology Officer**, *Unbound Concepts*, Baltimore, MD.
Natural Language Processing across a large dataset of children's literature using NLTK
Machine Learning and predictive analysis with clustering and multivariate linear regression
Big data analysis applied to the NLP and ML using Hadoop and MapReduce techniques.Mobile
Application development: Android, iOS: Developed the BookLeveler app
Rich web application development with Django along with JSON server for mobile apps.

2010–2012 **Lead Programmer**, *Tactical Network Solutions*, Columbia, MD.
Python software development for embedded, mobile and server applications
Large-scale and real-time data analysis of Petabytes of wireless collects.
Wireless offensive computer network attack, computer network operations
Real time asset tracking software development with geolocation and KML toolkits
Django web application development and Android mobile client applications development

2007–2009 **CMS Analyst**, *Oxford University Press*, Oxford, United Kingdom.
Management of custom content management solutions for electronic publishing division
Customer representative for agile based development of OED 4.0 CD-ROM software
Data and database management for XML DTDs and Schemas

2003–2004 **Junior Network Engineer**, *CenGen, Inc.*, Columbia, MD.
Network support for DARPA's Grand Challenge & USMC Condor
Mobile and wireless integration, network vehicle integration
Field support and logistics, small team leadership

## Skills

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|---|---|---|---|
| Software Development | Python 2.7 & 3.4, GoLang, JavaScript, Java, C/C++, Git, Agile | Big Data | Spark, Hadoop, MapReduce, HDFS, Distributed Systems, Celery |
| Machine Learning | Scikit-Learn, SparkML, GraphX | NLP | NLTK, TextBlob, Pattern |
| Application Development | Django, Nginx, AJAX, jQuery, Underscore, Bootstrap, Flask, Django-Rest-Framework, RESTful APIs | Databases | PostgreSQL, MongoDB, LevelDB, Redis, Hive, Titan, Neo4j, MySQL, SQLite |
| Networking | Kismet, Wireshark, Mgen, 802.11, Protocol Buffers, NS2 | OS | Mac OS X, Ubuntu Linux, Gentoo, Embedded Ubuntu, Android, iOS. |

## Volunteer Experience

○ Advances in Cognitive Systems 2015: Referee and reviewer of paper submissions.

○ Data Community DC: Treasurer, Board Member, and Organizer for DIDC.

○ Vino Scholastico: Charity committee for a tuition fundraising event at HCC in Maryland.

○ Team Fight, The Ulman Cancer Foundation: athletes raising money for the long term cancer treatment and care of young adults.

○ The Bridging Project: taught level 2 maths to asylum seeking refugees.

○ Primannum Honor Society: organized blood drives for The Red Cross.

○ Leadership U: tutored ESL elementary aged students.

○ National Honor Society